The Occupational and Environmental Health Nurses' Role in Providing a Comprehensive Approach to Depression Management

by

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A Master's Paper submitted to the faculty of the
University of North Carolina at Chapel Hill
in partial fulfillment of the requirements for the degree of
Master of Public Health
in the Public Health Leadership Program.

December 2011

Approved by:

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ABSTRACT

Depression is a common condition that impacts all levels of the workforce, often going undiagnosed and untreated due to both individual and organizational barriers. Workers with depression can experience multiple symptoms that contribute to personal suffering as well as impaired job performance resulting in loss of productivity for the organization. Identifying depressed workers can facilitate prompt treatment, reduce symptoms in the worker, improve productivity, and reduce healthcare costs.

Through a comprehensive approach to depression management, the occupational and environmental health nurse (OEHN) can implement strategies to educate the workforce on depression and available treatment, identify workers who are depressed, and initiate referrals for appropriate treatment. The OEHN can also assist management with identifying job accommodations for modified duty after an episode of worker disability from depression. Modified duty ensures that injured workers are matched with jobs that accommodate physical capabilities. Lost time is reduced when the employer can accommodate work restrictions.

Keywords: occupational health nursing, depression, modified duty

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CHAPTER I

INTRODUCTION

Definition of Depression

Depression is a common, chronic, and often recurring condition that is characterized by changes in thinking, mood, and behavior. Depression can result in varying degrees of disability in the affected individual. A diagnosis of depression may be made if five of the following symptoms have been present for at least two weeks: feeling depressed, sad, blue, or tearful; loss of interest or pleasure in things that were previously enjoyed; appetite is much less or much greater than usual; weight loss or gain; trouble sleeping or sleeping too much; feeling agitated, restless, or slowed down; feeling tired and having no energy; feeling worthless or excessively guilty about things you have done or not done; trouble concentrating, thinking clearly, or making decisions; feeling that you would be better off dead or having thoughts of suicide (American Psychiatric Association, 1994).

Depression in the General Population

The etiology of depression in the general population is complex, as there is no known single cause of depression. Depression is likely the result of a combination of genetic, biochemical, environmental, and psychosocial factors (National Institute of Mental Health [NIMH], 2009). The following groups are more likely to meet the criteria for major depression: persons 45-64 years of age, women, blacks, Hispanics, non-Hispanic person of other race or multiple races, persons with less than a high school education, those previously married, individuals unable to work or unemployed, and persons without health coverage. Other forms of depression or minor depression were found in similar groups except that 19-24 year olds met

criteria more than any other age group (Table 1.1) (Centers for Disease Control and Prevention [CDC], 2010a).

Depression in the Workforce

All levels of the workforce are at-risk for developing depression. It is likely that depression in workers results from a complex interaction of genetic influences; psychological predisposition including past experience, personality, and temperament; environmental adversity including stress and other negative workplace conditions, and family and social influences (Myette, Garuso, and Stave, 2009). Depression tends to affect people in their prime working years and may last a lifetime if left untreated (Mental Health America, 2010). Workers suffering from depression that is undiagnosed and untreated may compromise productivity and lead to financial loss for the organization. In addition, the worker may continue to experience distressing symptoms that in most cases can be managed or eliminated if treated appropriately (NIMH, 2009). Fifteen percent of people with depression, who do not obtain appropriate mental health services, may experience prolonged suffering and feelings of hopelessness and isolation which may eventually lead to suicide (Mental Health America, 2010).

Comprehensive Approach

Through a comprehensive approach to managing depression in the workforce, the OEHN can increase awareness and assist workers who are experiencing symptoms of this disease. A thorough assessment of the workforce will enable the OEHN to develop appropriate primary, secondary, and tertiary prevention services that meet the needs of the workforce. Educating all workplace personnel, including supervisors, managers, and human resource representatives can help reduce the stigma associated with depression and assist in the recognition of depressed

TABLE 1.1

Weighted* Percentage of Adults Meeting Criteria for Current Depression,† by Type of Depression and Selected Characteristics --- Behavioral Risk Factor Surveillance System, United States, 2006 and 2008

Characteristic	No. in sample	Major depression	Other depression	Any current depression
		% (95% CI¶)	% (95% CI)	% (95% CI)
Total	235,067	3.4 (3.2--3.5)	5.7 (5.4--5.9)	9.0 (8.7--9.3)
Age group (yrs)				
18--24	9,944	2.8 (2.3--3.4)	8.1 (7.2--9.2)	10.9 (9.8--12.1)
25--34	27,086	3.4 (3.0--3.9)	5.6 (5.2--6.2)	9.1 (8.5--9.8)
35--44	39,440	3.6 (3.2--4.0)	5.0 (4.7--5.5)	8.6 (8.1--9.2)
45--64	97,642	4.6 (4.3--5.0)	5.4 (5.0--5.8)	10.0 (9.5--10.5)
≥65	59,246	1.6 (1.4--1.8)	5.2 (4.9--5.6)	6.8 (6.4--7.2)
Gender				
Men	89,842	2.7 (2.5--3.0)	5.2 (4.9--5.5)	7.9 (7.5--8.2)
Women	145,225	4.0 (3.8--4.2)	6.1 (5.9--6.4)	10.1 (9.8--10.4)
Race/Ethnicity				
White, non-Hispanic	183,563	3.1 (2.9--3.2)	4.8 (4.6--5.0)	7.9 (7.6--8.1)
Black, non-Hispanic	17,604	4.0 (3.6--4.6)	8.7 (7.9--9.7)	12.8 (11.8-13.8)
Hispanic	18,391	4.0 (3.4--4.6)	7.5 (6.7--8.3)	11.4 (10.5--12.5)
Other**	13,528	4.3 (3.6--5.1)	6.3 (5.5--7.3)	10.6 (9.5--11.9)
Education				
Less than high school diploma	21,463	6.7 (6.0--7.6)	10.4 (9.5--11.4)	17.1 (16.0--18.3)
High school diploma	68,250	4.0 (3.7--4.3)	7.2 (6.7--7.6)	11.2 (10.6--11.7)
At least some college	145,020	2.5 (2.3--2.6)	4.1 (3.9--4.3)	6.6 (6.3--6.9)
Marital status				
Married	133,642	2.2 (2.0--2.4)	4.3 (4.1--4.6)	6.5 (6.3--6.8)
Previously married††	65,789	6.6 (6.1--7.0)	7.9 (7.5--8.4)	14.5 (13.9--15.1)
Never married	34,850	4.1 (3.7--4.5)	7.5 (6.9--8.2)	11.6 (10.9--12.3)

TABLE 1.1 (continued)

Weighted* Percentage of Adults Meeting Criteria for Current Depression,† by Type of Depression and Selected Characteristics --- Behavioral Risk Factor Surveillance System, United States, 2006 and 2008

Characteristic	No. in sample	Major depression	Other depression	Any current depression
		% (95% CI¶)	% (95% CI)	% (95% CI)
Employment status				
Employed	133,951	2.0 (1.8--2.1)	4.5 (4.2--4.7)	6.4 (6.1--6.7)
Unemployed	8,991	9.8 (8.7--11.0)	11.6 (10.2--13.1)	21.3 (19.6--23.2)
Retired	55,172	1.6 (1.4--1.8)	4.7 (4.4--5.1)	6.3 (5.9--6.7)
Unable to work	13,054	22.2 (20.7--23.8)	16.9 (15.6--18.3)	39.1 (37.3--40.9)
Homemaker/Student	23,447	3.0 (2.6--3.5)	6.2 (5.5--7.0)	9.2 (8.4--10.1)
Health insurance coverage				
Yes	208,323	2.9 (2.8--3.1)	5.0 (4.8--5.2)	7.9 (7.7--8.2)
No	26,265	5.9 (5.4--6.5)	9.0 (8.2--9.8)	14.9 (14.0--15.8)

Source: Centers for Disease Control and Prevention (CDC), 2010a.

* Data were weighted to adjust for differences in probability of selection and nonresponse, as well as non-coverage (e.g., households lacking landlines).

† Data presented were collected by 16 states in 2008 and by 29 different states, the District of Columbia, and two territories in 2006. Five states (Kentucky, New Jersey, North Carolina, Pennsylvania, and South Dakota) did not participate in either year. Nine states (Hawaii, Kansas, Louisiana, Maine, Mississippi, Nebraska, North Dakota, Vermont, and Washington) participated in both years, but only 2008 data were included.

¶ Confidence interval.

** Includes non-Hispanic persons of other races or multiple races.

†† Includes divorced, widowed, or separated.

workers. Appropriate and timely interventions can be initiated once depressed workers are identified.

CHAPTER II

LITERATURE REVIEW

Incidence/Prevalence

Six to eight percent of the U.S. population have a major depressive disorder annually; an additional 1-2% have major depressive episodes related to bipolar disorder, and another 1-2% have active dysthymic disorder each year (Kessler, Merikangas, & Wang, 2008). Although depression can occur in early childhood years as well as elder years, persons under 45 years of age are more likely to suffer from depression than persons 45 or older. The average age of the onset of major depression is between 20 and 40 years (World Health Organization [WHO], 2006). The life-time risk of developing depression is 10-20% in females and slightly less in males. Women have a relatively higher rate of occurrence of depression than men. The gender differences are consistent across the life cycle, but are much more prominent in young adult and middle-aged women. Maintaining multiple roles such as home-makers, professionals, wives, and mothers may explain the higher frequency of depression in women. The rate of occurrence of depression does not vary significantly by race or ethnicity. Socioeconomic or educational differences may contribute to some differences observed between ethnic groups, but on statistical correction of these factors, there is no variation in risk by ethnic groups (WHO, 2006).

Depression is the most common mental health disorder in the workplace affecting approximately 1 in 10 employees. Rates of depression vary by occupation and industry type. Among full-time workers aged 18 to 64 years, the highest rates of workers experiencing a major depressive episode in the past year were found in personal care (10.8%) and the food preparation and serving related occupations (10.3%) (CDC, 2010c). Healthcare workers have higher rates of

substance abuse and suicide than other professions and elevated rates of depression and anxiety linked to job stress (CDC, 2007). Stress in the healthcare industry can be attributed to inadequate staffing, long hours, shift work, exposure to infectious and hazardous substances, dealing with death and dying, and threat of malpractice (CDC, 2007).

Risk Factors for Depression

Although the precise cause of depression isn't known, certain risk factors may increase the risk of developing or triggering depression. Risk factors may be related to the individual, social aspects, and the organization. Individual risk factors that cannot be modified include: age, parents or a biological relative with depression, female gender, birth of a baby, history of trauma or abuse, chronic pain, past history of depression, and early onset of anxiety (Kendler, Gardner, & Prescott 2006; WHO, 2006).

Occupational health programs can assist an employee improve their modifiable risk factors for depression through education, screening, interventions, and referrals. Modifiable risk factors for depression include: stress, chronic health conditions, and low self-esteem. Employers may want to target these risk factors, but may also be more interested in identifying and reducing risk factors that are both modifiable and work-related (Bilsker, Gilbert, Myette, & Stewart-Patterson, 2005). Certain medications can cause depression. Examples include blood pressure medications such as Lopressor, Tenormin, and Coreg (WebMD, 2011); anti-anxiety medications such as Valium; and pain medications such as Demerol and Percocet (Cheong, Herkov, & Goodman, 2011). Other modifiable risk factors for depression include living in urban as opposed to rural areas and experiencing financial problems; however, it is unlikely that the employer can alter these risk factors with a targeted program. Poor access to mental health services may lead to poor depression outcomes. Employers can increase access to mental health

services through insurance benefits that are offered to employees. Employees may also have increased access through onsite mental health services, such as the Employee Assistance Program (EAP) facilitated by an OEHN referral.

Social issues in an employee's life may increase the risk of developing depression. According to the WHO (2006), unmarried status appears to be one of the most consistent risk factors for both depressive symptoms and depression. Separated and divorced persons have the highest risk, while single and married persons carry the lowest risk. Individuals, who have been recently widowed, have higher rates of depression; however, variables such as the quality of the relationship, children, and adequacy of support systems will determine the outcome. A disruptive home environment that results in trauma, for example, abuse and neglect in childhood, may result in inadequate coping mechanisms that impair one's ability to adjust to adverse feelings. This impaired adaptation may contribute to subsequent development of depression (WHO, 2006). It is believed that social losses in a person's life can contribute to depression, while improved interpersonal relationships alleviate the symptoms of depression. A lack of a support system, friends, and personal relationships tends to prolong the suffering caused by depression (WHO, 2006).

Organizational risk factors for depression vary among industries. Stewart, Ricci, Chee, Hahn, and Morganstein (2003) identify the following work-related risk factors for depression: job dissatisfaction, job insecurity from downsizing or organizational changes, and unemployment. According to Cheong et al. (2011), people unemployed for six months or more in the last five years had a rate of depression three times that of the general population. The association between being out of the labor force and depression was stronger for men and most common in ages 29-37 (Mossakowski, 2009). A number of studies of diverse groups of

occupations have also identified the following job stressors that may be associated with depression: high job demands, low job control, and lack of social support in the workplace (CDC, 2010c). In addition, Wieclaw (2006) has identified bullying on the job as well as threats and violence as risk factors for depression and stress related disorders in both genders.

Signs of Depression in the Workplace

Signs and symptoms of depression at work vary in severity and duration and may include tardiness, complaints of fatigue, reduction in work output or quality, safety problems or accidents, drug and alcohol abuse, and changes in attitude (CDC, 2010c). Employees exhibiting symptoms such as missed deadlines, procrastination, absenteeism, and frequent absences from the work station may be interpreted as having a bad attitude or poor work ethic (Wallace, 2007). Depressed employees may report symptoms of tiredness, an increase or decrease in appetite, unexplained aches and pains, or appear to be withdrawn or overly sensitive (Wallace, 2007). Supervisors may help in the early recognition of a depressed employee. Supervisors should not diagnose depression; however, they are responsible for documenting employee absences and job performance. If symptoms are exhibited for over two weeks, the supervisor should discuss performance issues with the employee and recommend a referral to the OEHN or EAP (Wallace, 2007).

Treatment

The goals in treating depression include remission, elimination of suffering associated with depressive symptoms, return to full function, and prevention of further depressive episodes (Myette et al., 2009). Antidepressant medications and brief structured forms of psychotherapy are effective for 70-90% of those affected and can be ordered by a primary care physician (National Alliance on Mental Illness [NAMI], 2010). Medication therapy is directed toward the

specific chemical such as serotonin re-uptake inhibitors. Although there is a limited role for initial pharmacological treatment by non-psychiatrist providers with training and experience (e.g., occupational and environmental health physicians), definitive management, particularly with combination pharmacotherapy, is best managed by psychiatrists experienced in workplace issues. Empirically validated time-limited psychotherapies, such as 12 to 20 cognitive behavioral and interpersonal therapy sessions, have demonstrated effectiveness in treating depressive illness and may be appropriate either alone or combined with pharmacotherapy (Myette et al., 2009).

Electroconvulsive therapy (ECT) can provide a rapid change in brain chemistry which can lead to an immediate reduction in depressive symptoms that were previously resistant to antidepressant therapy. ECT is administered to an estimated 100,000 people a year, primarily in general hospital psychiatric units and in psychiatric hospitals, and is used in treating patients with severe depression, acute mania, and certain schizophrenic syndromes (Mental Health America, 2010). During the ECT procedure, electrodes are placed on the scalp and electric currents are passed through the electrodes to the brain triggering a brief seizure. ECT is usually administered in a series of 6-12 treatments given 3 times a week for a month. A medication regimen is recommended after ECT to prevent a relapse of symptoms.

Organizational Barriers

Despite well-established research indicating the significant negative effect depression has on both the individual and the organization's health, and dozens of intervention studies demonstrating highly successful treatment options, most U.S. employers lack political and financial support for an aggressive approach to managing depression in the workplace (Putnam & McKibbin, 2004). Organizations that provide poor benefit design and inadequate access to

quality interventions create barriers to preventing depression in the workplace (LoSasso, Lindroth, Lurie, and Lyons, 2006). Many employers may be reluctant to implement programs focused on depression due to legal issues, lack of privacy complaints by employees, union issues, and liability. Some OEHNs may be hesitant to initiate a more aggressive response to depression management due to a lack of training on mental health issues, an inability to access all necessary health care information when case managing employees with depression, and a fear of interfering with other existing mental health programs and services in the organization (Putnam & McKibbin, 2004).

An employee returning to work after a depressive episode may experience more difficulty than if returning with a physical condition, due to lack of support from management (Mental Health Foundation, 2009). Currently few employees are assessed for depression when returning to work after sick leave. Employers assume that employees return to work because they are mentally and physically fit to do so; however, many employees return to work with mild to moderate depressive symptoms that go unrecognized by health care professionals, employers, and the employees (Mental Health Foundation, 2009).

Individual Barriers

Due to lack of understanding and misconceptions about depression, workers fail to seek treatment even when it is available. Barriers that prevent employees from obtaining appropriate treatment for depression may include stigma, inability to recognize signs and symptoms, lack of resources, and lack of awareness (Putnam & McKibbin, 2004). Employees frequently have concerns over confidentiality and fear that the diagnosis will result in negative consequences or discrimination. In addition, many individuals who suffer from depression are often in denial and lack motivation to seek help (Goldberg & Steury, 2001).

Cost to Employers

Depression that is untreated or undertreated can have a significant impact on job performance and productivity. Depression in the workforce can result in presenteeism (reduced job performance and productivity) which costs employers 44 billion dollars a years in lost productive time (National Alliance on Mental Illness, 2010; Stewart et al., 2003). Workers with depression lose an average of 5.6 productive hours per week, compared to an average loss of 1.5 hours per week for workers without depression (Stewart et al., 2003). It is estimated that major depression (recurrent depressive disorder) accounts for 48% of lost productive time from reduced performance while at work (Stewart et al., 2003).

Depressed workers have higher rates of unemployment, job turnover, and lower rates of job retention. Employees suffering from depression have higher rates of absenteeism and are prone to safety violations and accidents (Kessler et al., 2006). Depressed workers also tend to have poor morale and are often in conflict with other employees. Disability from work-related injury and illness may be prolonged if the employee is suffering from underlying depression. Surveys of workers with chronic disability indicate that delayed recovery may be directly related to inadequate coping skills in response to life stressors and that disability can provide a socially acceptable way to express feelings such as depression (Ladou, 2007).

CHAPTER III

COMPREHENSIVE APPROACH TO DEPRESSION MANAGEMENT

A comprehensive approach to depression management is based on a company's commitment to health promotion, philosophy of health and wellness, available resources, and employee needs. An employee's health is impacted by changes in the following levels of influence: the individual (health behaviors, health risk factors, and current health status), interpersonal (relationships with managers, coworkers, and family), organizational (workplace structure, culture, practices, policy, and leadership support of health and safety initiatives), and environmental (workplace setting and access and opportunity for health promotion) (CDC, 2010c). In order to gain a thorough understanding of the health of the workforce, it is important to assess employee health from a number of perspectives using multiple sources of data (CDC, 2010c).

Assessment

A thorough assessment of the workforce should be initiated by the OEHN to determine what types of interventions will best meet the needs of the workforce. An assessment helps determine the types of interventions that are appropriate for certain risk factors. For example, it is important to evaluate healthcare trends such as a rise in short-term disability or long-term disability claims, or an increase in EAP utilization, high job turnover, absenteeism, and decreased productivity, as these factors may indicate a need for depression screening (Bilsker et al., 2005). Data on individual employees, i.e., absenteeism and productivity trends, may also indicate a need for depression screening. If an employer does not want to screen the entire employee population, it may be useful to screen high risk groups first such as employees

utilizing the EAP, those with performance concerns, employees with medical conditions, and women. In addition, employees who make frequent visits to the occupational health clinic for continued complaints of pain may also be considered for screening (Bilsker et al., 2005).

The OEHN should observe the workplace setting and conduct interviews with managers and employees. These interviews will provide information on health attitudes and beliefs, and provide a better understanding of organizational practices that contribute to job stress and aspects of job design that contribute to poor mental health. For example, it is important to assess use of administrative controls, such as even distribution of workloads, sufficient rest, reduced overtime, and clear job descriptions, as these factors may reduce stress in the workplace (Bilsker et al., 2005).

Surveys can be used to obtain information about relationships in the workplace and highlight areas where the OEHN can make improvements. They can also identify information on job demands, such as time pressure or physical demands, and to assess the level of support provided by supervisors and colleagues. In addition, the survey results can help to develop training, communications, or identify other interventions to address mental health in the workplace (CDC, 2010c). Health interest surveys can be administered to plan health education programs for a targeted group of employees, and to promote employee ownership of the programs.

The OEHN should assess the workplace for the availability of internal and external resources. Internal resources may include budget, adequate space for holding seminars and conferences, and sufficient equipment to communicate health information, such as audiovisual equipment or bulletin boards. In addition, company resources such as flexible time to attend wellness programs should also be assessed, as companies that allow time for employees to attend

wellness activities during their work day demonstrate upper management support. Input from the human resource department should be obtained to determine if health benefits provide adequate coverage for mental health services. The human resource department will also provide information on current policies that promote a culture of good mental health, such as policies that describe how employees treat one another, and on job sharing. External resources may include community agencies such as state and local affiliates of the National Mental Health Association (NMHA) or the National Alliance on Mental Illness (NAMI). These organizations can provide education and awareness-raising presentations, or even special services such as confidential online depression screening for employees

Gaining the support of upper and middle management is an integral part of the development of programs and services that target depression. If management does not view health promotion activities for depression as a priority, the OEHN should educate management on the benefits of health promotion programs for depression. The use of data from other companies can be used to benchmark health indices of the workforce and related costs, and the costs associated with specific programs, such as mental health.

Planning

An advisory committee, led by the OEHN, should be established to review aggregate data from the workforce, research successful programs implemented at other companies, provide feedback on program ideas, and develop marketing strategies. Goals and objectives should be developed based on the data obtained in the assessment phase. Programs that are based on the needs and interests of the employer and employees will enhance participation and long term sustainability (CDC, 2010c).

The committee can leverage and build on existing programs to improve mental health services that are already in place. For example:

- move an off-site EAP to an on-site location to be more available to employees;
- conduct depression screening during the annual health fair by using Health Risk Assessments (HRAs);
- incorporate depression education into chronic disease management programs;
- evaluate pre-existing and newly developed mental health programs and services to ensure they are user friendly and easily accessible; and
- develop self-help web sites.

EAP counselors can provide onsite programs such as depression screening, stress management, and educational seminars on mental health topics. There should be multiple opportunities and methods for employees and their families to learn about depression and its treatment. For example, holding educational programs in the evening will allow second shift workers and their family members to attend.

Employee health benefits are part of an overall compensation package and affect an employee's willingness to seek preventive services and clinical care. Adequate coverage should be provided for low cost depression screening, accurate diagnosis, effective treatment services, and follow-up care for depression (CDC, 2010b; Myette et al., 2009). An employee with depression may require continued follow-up in a primary care setting, mental health care setting, or require a referral for treatment with a specialized mental health professional. For example, Aetna has a depression management program in the mid-Atlantic and Southwest that emphasizes screening at the primary care physician level, using a standardized measuring tool; they also

have a reimbursement program for physicians, and training in the screening technique (Cross, 2006).

Caremark has introduced a new depression disease management program that involves screening for depression in other disease management programs for early diagnosis and treatment according to standard guidelines (Cross, 2006). According to the CDC (2010b), screening and counseling to reduce alcohol misuse should also be covered. In some cases, alcohol and substance misuse precedes the development of depression and other mental health problems. Employees need to be well-informed of the specifics with regard to their mental health coverage when choosing health insurance options. A health insurer's toll-free information access line should be well publicized to supervisors and employees. Persons who are experiencing distress or simply want to learn more about symptoms of specific mental illnesses should have the phone number and web address.

According to Rogers (2003), for most organizations, the best strategy for health promotion program implementation is timely and organized planning that allows programs to be phased in over time. Programs can be scheduled around national campaigns such as Suicide Prevention Awareness Month, Depression and Mental Health Month, Mental Illness Awareness Week, and Depression Screening Day. They can be developed for certain groups of workers depending on specific needs such as alcohol and substance abuse and stress management, or individual counseling about selected risk factors such as grief or a chronic health condition. Age, gender, ethnicity, perception, and support systems should also be considered during the planning phase, as these factors will influence employee participation in health promotion programs.

During the planning phase, an evaluation strategy should be developed to assess whether or not the objectives of the program were met and if the funding for the program was used

effectively. In addition, it will be necessary to evaluate whether or not the employee and employer received any benefit from the program. Evaluation forms for data collection will need to be developed during this phase to assess pre-and post-intervention data, including knowledge of the topic presented, workers' compensation claim data, and medical and environmental monitoring data.

Lastly, in the planning and development phase, a budget will need to be created taking into account the available resources, operational costs, and indirect costs. Operational costs may include: utilization of company personnel such as the occupational health physician and OEHN; preparation time for the program; research and development; equipment; printing of educational handouts; marketing material; program evaluation; and pre-and post-tests. Indirect costs may include employee time off from work to attend the program.

Implementation

Interventions and strategies that have been developed during the planning phase are carried out during the implementation phase. A combination of interventions and strategies should target awareness, behavior change, or supportive environmental change. Program orientation, follow-up, and monitoring will also take place during this phase.

Awareness strategies help prepare an individual for behavior change. They empower an individual to devise a plan to use the information received and gain practical access to strategies to reinforce specific behaviors (Rogers, 2003). These programs are designed to increase employees' level of knowledge or interest in the topic of depression, and may use various communication strategies such as newsletters, posters, health fairs, health screening, group information sessions, and bulletin board notices. Actual behavior change or improvement in health does not result from this type of program. However, awareness programs offered in

conjunction with other programs are very useful and necessary to motivate people to attend lifestyle change programs (Minnesota Department of Health, 2010).

Strategies or programs that target behavior change require a thorough understanding of the targeted problem or behavior that needs to be modified to assist workers in adopting a health behavior change. Strategies geared toward behavior change in depression management programs may include goal setting and self-monitoring. For example, Caterpillar, the world's leading manufacturer of construction and mining equipment, implemented a telephonic nurse care manager program to assist at-risk employees in setting lifestyle goals, reducing their depressive symptoms, and exploring deterrents to reaching their goals. In addition, the telephonic care manager assists with referrals, education, and encourages compliance with prescribed treatment (Partnership for Workplace Mental Health, 2010). Sprint, a national telecommunications company, incorporated nurse advocates in their wellness program entitled Sprint Alive! In an effort to identify and assist depressed workers with the medical treatment, nurse advocates mailed postcards to employees containing information about depression. Employees were invited to call the Sprint Alive! phone line which is staffed by nurses 24 hours a day, seven days a week (Cross, 2006).

Interventions geared toward creating a supportive cultural environment are intended to maintain a sustained healthy lifestyle and focus on the physical settings, policies, rewards, and recognition for role models, and on-going program sustainability. Some examples include:

1. management serving as role models by supporting and participating in wellness activities;
2. policies that describe how co-workers should treat one another, and

3. training programs to improve manager and employee communication, problem solving skills, and conflict resolution (CDC, 2010c).

Follow-up and monitoring after the implementation of a program will determine if employees need further clarification on any issues discussed in the program. Continued support and encouragement should be offered to employees to maintain ongoing participation in program activities. Follow-up after depression screening is essential to ensure that appropriate referrals have been made to EAP counselors. A tracking program should be implemented to maintain contact with program participants to monitor both short- and long-term progress toward achievement of behavioral change.

Evaluation

An evaluation of depression programs should be performed to ensure the program has met established goals and objectives as well as desired outcomes. The following metrics can be used to evaluate depression programs: health care costs, health outcomes, worker productivity, and organizational change. According to the CDC (2010c), it is not necessary to use all measurements for program evaluation, as some may be difficult to collect or may not fit into the structure of the company. The metrics should be used for employee group assessments only. Data for the employer should be collected anonymously over time and reported in aggregate, typically by a third party administrator. In general, data from the previous 12 months can provide sufficient baseline data, and can be used to establish program goals and objectives and to assess progress towards goals in the evaluation phase. Ongoing measurements should be collected every 6-12 months after a program begins, but measurement timing should be adapted to the expectation of the program (CDC, 2010c). The data obtained during the evaluation process can be used to make adjustment to the program to ensure that goals and objectives are being met.

CHAPTER IV

ROLE OF THE OCCUPATIONAL AND ENVIRONMENTAL HEALTH NURSE

Primary Prevention

Primary prevention services are geared towards intervening before the onset of depression by reducing modifiable risk factors such as severe stress, substance abuse, chronic health conditions, job dissatisfaction and low social support, and improving protective factors such as building coping skills, social support, and health promotion activities. Primary prevention services may include: improving worker and management understanding of depression, reducing stigma associated with depression, and building social support within the workforce. According to the CDC (2010b), managers and employees can assist in the early identification of depressed workers by recognizing the signs and symptoms of depression, which include tardiness, complaints of fatigue, reduction in work output or quality, safety problems or accidents, and changes in attitude. Putnam and McKibbin (2004) suggest that ongoing organization-wide training on building awareness of depression and its treatment can help to overcome barriers to using the EAP. To maximize participation, training can be incorporated into leadership development courses, staff in-services, continuing education classes, department meetings, and new employee orientation. Additional strategies to promote awareness are: having an EAP representative participate in the employee orientation process; sending e-mails to inform workers how to obtain information on mental health; adding a link or banner button on the Intranet that takes employees to more information about mental illnesses; and inserting messages in paycheck envelopes or on electronic pay stubs for tips about holiday stress reduction,

reminder notices of health screenings, and/or reminders of how to contact the company EAP (U.S. Department of Health and Human Services, 2009).

Supplementary programs aimed at promoting wellness in the workforce can also help in the management of depressive symptoms. Employees who participate in physical activity programs can decrease depression symptoms and sometimes avoid mild depressive episodes. Physical activity is one of the most effective disease prevention behaviors. According to the CDC (2010c), physical activity reduces feeling of depression, improves stamina and strength, reduces obesity, and decreases risks of cardiovascular disease. Other supplementary programs may include: resilience-building activities that protect against the effects of workplace stress such as yoga, tai chi, or lunchtime fitness walks; workshops on problem-solving, effective communication, and conflict resolution; time management classes to reduce stress; domestic abuse outreach; or learning and development classes that promote career development and personal and life enrichment (U.S. Department of Health and Human Services, 2009).

Secondary Prevention

Secondary prevention services occur after early symptoms of the disease are present, whether or not the affected individual is aware. They are geared toward early detection and immediate treatment to prevent further disability. For example, when an employee presents to the occupational health unit with symptoms of depression, the OEHN should assess the extent and severity of the problem (Figure 4.1). Employees displaying symptoms of depression should be evaluated in the occupational health unit and referred to the employee assistance program, primary care physician, community agency, or emergency crisis agency (Rogers, Randolph, & Mastroianni, 2003). Questions can used to assess the employee (Figure 4.2). During the initial assessment, the OEHN should maintain privacy and confidentiality, actively listen to the

FIGURE 4.1

CLINICAL ASSESSMENT AND INTERVENTION

- Identify behaviors and complaints that might indicate underlying depression.
- Discuss any family history of depression and alcohol abuse.
- Perform a lethality assessment to identify risk to self or others. Ask such questions as, "When you feel depressed, have you ever wanted to hurt yourself?" or "Do you feel that life is not worth living when you feel depressed?"
- Identify whether the employee has a plan or method for self-harm (suicide) or others.
- Actively listen to the employee.
- Maintain a nonjudgmental and confidential communications.
- Determine whether the employee has personal medical resources, desires the use of EAP referral system, or has community resources.
- Refer the injured worker to his/her personal provider or the appropriate agency for treatment.

Source: Rogers et al., 2003, pp. 72-73.

FIGURE 4.2

ASSESSMENT QUESTIONS FOR DEPRESSION

- Can you describe your mood for me?
- How long have you felt this way?
- What is the feeling of depression like for you?
- Have you noticed changes in your level of interest in normal activities?
- How would you rate your feeling of depression on a 1 to10 scale?
- How do you explain depression?
- Have you experienced any losses or changes in your life?
- If you could change one thing about your current situation, what would it be?
- What do you think would make you feel better?
- If you have had a problem with depression before, what helped you at that time?
- Are you experiencing thoughts of suicide?
- Do you have a plan for suicide? How would you go about it?

Source: Rogers et al., 2003.

employee, maintain nonjudgmental communication, and determine if the employee has personal medical resources, desires the use of the EAP referral system, or has community resources. According to Rogers (2003), the OEHN needs to have specific counseling, knowledge, and skills such as problem recognition; ability to build supporting, trusting, and confidential relationships; crisis intervention approaches; and knowledge about community resources to assist the employee and in some cases the family. The OEHN should demonstrate a sensitive, nonjudgmental, caring attitude and respect for the employee and the problem. The employee should immediately be referred to an emergency crisis intervention agency, if the employee voices suicidal or homicidal ideations or exhibits psychotic symptoms (Rogers, 2003). The OEHN should obtain consent prior to discussing the employee's medial history with other health care providers.

Voluntary screening for depression can be utilized to identify workers who are depressed and lack insight into their condition. Worksites should consider offering validated, reliable mental health screening tools as part of a comprehensive worksite health promotion program to help employees identify possible mental health issues that could be followed up by an EAP counselor (CDC, 2010c). For example, the Patient Health Questionaire-9 (PHQ-9) (Figure 4.3) is a nine-question scale that asks respondents to answer how often they experience the cluster of symptoms that defines depression. The questions are based on the nine diagnostic criteria for major depressive disorder in the DSM-IV screening tool (Spitzer, Williams, & Kroenke, 1999). Beside screening employees who have individual risk factors, employers may consider screening in areas of high turnover, in employees whose positions are typically associated with high stress, and as a universal strategy, if the workplace majority is women (Bilsker et al., 2005). Screenings can be performed in a variety of forms: web, telephonic, or paper-based. The type of tool utilized for the screening should be chosen based on needs of the workforce. For example, the Internet

FIGURE 4.3

PATIENT HEALTH QUESTIONNAIRE (PHQ) - 9

Criteria	Not at all	Several days	More than half the days	Nearly every day
1. Over the last 2 weeks, how often have you been bothered by any of the following problems?				
a. Little interest or pleasure in doing things…				
b. Feeling down, depressed or hopeless …				
c. Trouble falling or staying asleep, or sleeping too much …				
d. Feeling tired or having little energy…				
e. Poor appetite or overeating …				
f. Feeling bad about yourself – or that you are a failure or have let yourself or your family down…				
g. Trouble concentrating on things, such as reading the newspaper or watching television…				
h. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual …				
i. Thoughts that you would be better off dead or of hurting yourself in some way…				
2. If you checked off any problems on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?				

Not at all difficult	Somewhat difficult	Very difficult	Extremely difficult

Source: Spitzer et al., 1999.

provides a readily available, inexpensive, and easily maintained method to anonymously screen large numbers of workers. This method may be effective in identifying younger workers with depression, but may not be as effective for an older population (CDC, 2010b).

The U.S. Preventive Services Task Force (2009) recommends screening adults for depression in clinical practices that have systems in place to ensure accurate diagnosis, effective treatment, and effective follow-up. The OEHN should consider these factors when identifying workers during a depression screening:

- reinforce that participation in any worksite depression assessment is voluntary;
- make sure employees sign an informed consent form;
- ensure strict confidentially;
- score assessments promptly;
- have an emergency plan in place to respond to workers who are at high risk for suicide;
- store all employee data related to depression in locked files, separate from human resource records;
- report data in aggregate only;
- ensure that all staff working with worksite-based depression programs are aware of the Health Insurance Portability and Accountability Act (HIPAA) and the organization's confidentiality policy; and
- ensure that programs and services are available, either at the worksite or as part of the mental health benefit plan (or both) (Putnam & McKibbin, 2004).

The OEHN should maintain safe and effective record keeping practices by maintaining legal and ethical practices. Only the OEHN and physician should have access to the employee's

health records and the employee's written consent is required if records are viewed by other individuals. The occupational health unit should have a policy in place to address the protection of confidential employee health records and information disclosure. Referral to specialists such as the EAP or other external mental health experts will be necessary to obtain a definitive diagnosis for employees with positive screening results.

The EAP provides several essential services to the workforce. An EAP counselor can provide services for a wide range of personal concerns or assist with off-site referrals for longer term professional treatment. The EAP is generally less stigmatized in the community than professional treatment and is often an employee's first encounter with the mental health profession. An employee is more likely to seek help from the EAP than a mental health professional in the community (O'Donnell, 2002). The EAP counselor will also work with supervisors, human resource personnel, and union representatives when an employee has job performance issues. By maintaining a focus on job performance, management can assist with referrals to the EAP for personal issues that may be contributing to unacceptable behavior at work.

Tertiary Prevention

Tertiary prevention services are aimed at restoring health and assisting workers attain their maximum level of functioning. A return to work program after an employee returns to work from a depressive episode is an example of a tertiary prevention strategy. Drug side effects that could potentially impact job performance should be discussed with the employee and if necessary, job accommodations should be provided. In order to determine the appropriate work restrictions, a physician should perform a fitness for duty evaluation. The physical demands of the employee's full duty job should be obtained so the physician can make appropriate

recommendations for work restrictions. Based on the recommendations of the physician, the OEHN can work with management to coordinate temporary modified duty work to ensure an appropriate match between the employee's work ability and the job. Allowing the worker to return to work with restrictions or on a temporary part-time basis will reduce the employee's stress and reduce lost time for the employer. According to the U.S. Department of Health and Human Services (2009), one of the most encouraging and hopeful activities that a supervisor and employee can undertake during the recuperation period is planning for the return to work. For example, the employer may be asked to accommodate restrictions, such as starting the employee back on a reduced schedule or adjusting job duties to meet the employee's ability.

Legal Obligations

Disability management by the OEHN can minimize the impact and cost of disability to the employer and the employee and encourage return to work of an employee with a disability (U.S. Department of Health and Human Services, 2009). The OEHN should understand the legal obligations involved in the management of depression in the workplace. If an employee is unable to resume regular work duties after an episode of depression, the OEHN should understand the employment provisions of Title I of the Americans with Disabilities Act (ADA) to determine how to assist and educate the employee and management when the functional ability of the worker is affected. According to the ADA definition of disability, the employee must meet at least one of the following criteria: physical or mental impairment that substantially limits one or more of his or her major life activities; record of such an impairment; or regarded as having such an impairment (U.S. Equal Employment Opportunity Commission, 2008). The ADA defines a mental impairment as a mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities (U.S. Department

of Justice, 2010). An impairment is determined without regard to any medication or assistive device that he or she may use. The OEHN can review the employee's job description to identify the physical requirements of essential job functions to determine workplace accommodation strategies. If an employee is not able to perform essential job functions under the ADA, the employer must try to find reasonable accommodations that will enable the employee to perform these duties. The OEHN should actively work with management to identify reasonable accommodations for the employee's disability while ensuring confidentiality of the employee's health record. Examples of reasonable accommodations may include providing self-paced workloads or flexible hours; modifying job duties; allowing leave (paid or unpaid) during periods of hospitalization or incapacity; assigning a supportive and understanding supervisor; modifying work hours to allow people to attend appointments with their psychiatrist; providing easy access to supervision and supports in the workplace; and providing frequent guidance and feedback about job performance (U.S. Equal Employment Opportunity Commission, 2008). The employer is not required to provide accommodations that would create a hardship on the organization, and the employee is not required to accept accommodations that have not been requested or are not wanted (U.S. Department of Justice, 2010).

The OEHN should be aware of provisions of the Family Medical Leave Act (FMLA) to remain in compliance with federal regulations when an employee is losing time from work. An employee diagnosed with mild to moderate depression may qualify for FMLA leave and reduced work hours, or intermittent leave may be indicated to ensure compliance with the primary care provider's plan of care. In order to qualify as a serious health condition under the FMLA, there must be some degree of disability (Reed, 2002). The OEHN or human resource department must ensure that the leave certification remains current. The employee can be asked for this

information directly by a health care provider representing the employer, human resource professional, a leave administrator, or management official, but not by the employee's direct supervisor (U.S. Department of Labor, 2010). Clarification should be obtained if the provider is vague on the medical form certifying leave or the employee deviates from the certification. The OEHN or human resource department can ask for information pertaining to current FMLA leave, but cannot ask for information pertaining to the employee's general health. The following information can be asked: type of serious illness, medical facts supporting certification, date the serious health condition began, likely duration, and facts concerning intermittent leave (U.S. Department of Labor, 2010).

The OEHN should be aware of workers' compensation coverage for depression stemming from workplace conditions. Workers' compensation is intended to provide fair payment for work-related injuries and disability. In many jurisdictions, however, despite the growing number of claims for depression caused by work-related conditions, depression is not viewed as a compensable disability by the workers' compensation boards or the courts. Judges are concerned that the workers' compensation system will be turned into a general health insurance system where workers would be compensated and treated for depression stemming from stress and tension inside and outside of the workplace that all employees experience (Goldberg & Steury, 2001). Because most work-related depression claims are rejected, there is little incentive for employers to improve working conditions that contribute to stress. Wider acceptance of compensation for stress-related claims, including claims for depression would provide an incentive for employers to reduce stress in the workplace (Goldberg & Steury, 2001).

Different states have different policies and/or laws with regard to mental health parity; therefore, it is very important that human resource managers adequately understand the

differences in mental health care coverage if various health insurance plan options are offered. According to the U.S. Department of Health and Human Services (2010), the Mental Health Parity and Addiction Equity Act of 2008 requires that any group health plan include mental health and substance use disorder benefits along with standard medical and surgical coverage that is equal in terms of out-of-pocket costs, benefit limits, and practices such as prior authorization and utilization review. For example, a plan may not apply separate deductibles for treatment related to mental health or substance use disorders and medical or surgical benefits. The Mental Health Parity and Addiction Equity Act applies to employers with 50 or more workers whose group health plan chooses to offer mental health or substance use disorder benefits. The rules are effective for health plans beginning on or after July 1, 2010 (U.S. Department of Health and Human Services, 2010).

CHAPTER V

RECOMMENDATIONS/CONCLUSIONS

The OEHN plays a major role in the management of depression in the workforce. A comprehensive approach to managing depression in the workforce involves occupational health programs and services that bring awareness to this disease, reduce risk factors, educate the workforce, reduce stigma, identify at-risk workers, and assist depressed workers in obtaining appropriate treatment. An employee's access to needed psychiatric services is often limited by inadequate mental health insurance benefits. Adequate mental health benefits to cover treatment and medications are necessary to ensure that the employee receives appropriate follow-up care once diagnosed with depression. The OEHN should work with the multidisciplinary team when job modifications are indicated or when an employee is returning to work from an absence due to an episode of depression. Providing a supportive environment during this time will assist the employee in the transition back into the workforce and reduce lost time.

Previous studies indicate that providing enhanced care for depression in the workplace will result in cumulative savings to employers over time through indirect costs such as decreased lost time and increased productivity and through the direct cost of decreased healthcare. For example, the results of a longitudinal study conducted by Adler et al. (2006) suggest that workers with depression may benefit from work-focused interventions that address barriers to effective functioning. Depressed workers can learn new approaches to deal with job demands such as time management, mental and physical tasks, and interpersonal interactions. Workers may also identify workplace supports such as the EAP and the occupational health clinic. This study concluded that additional research is urgently needed to test workplace interventions focused on

supporting the depressed worker's on-the-job performance. Elinson, Houck, Marcus, and Pincus (2004) found that understanding the characteristics of people with depression who are unable to work or who continue to work with reduced productivity may aid in the development of programs to improve access to healthcare and adherence to depression treatment. This knowledge will help shape healthcare benefits packages, disability programs, and treatment programs. Ongoing research should address cost barriers that prevent employers from participating in enhanced programs for the treatment of depression, as there are few formal cost-effectiveness analyses in healthcare that have been published that explicitly include an analysis from the employer's perspective. Wang et al. (2006) evaluated the cost and benefits associated with enhanced depression care from the employer's perspective and found that enhanced depression care for workers is cost-beneficial to both the employer and society. These costs and benefits will likely impact negotiations between employers' benefits department and healthcare plans.

Health insurance provided by the employer provides employees with the financial means to access needed healthcare services for mental health. Due to rising healthcare costs, many employers cannot afford healthcare benefits for employees. Only 60% of employers offered health insurance to some of their employees in 2006, down from nearly 70% in 2000 (National Coalition on Health Care Reform, 2007). Even if employers offer health insurance, employees' share of the premium is higher and unaffordable for many working families (National Coalition on Health Reform, 2007). The cost of therapy and medication are common barriers keeping people from getting treatment for a mental health problem. The recent passage of healthcare reform legislation, Protection and Affordable Care Act (PPACA) 2010, has positively impacted mental health coverage. It was designed to make the health insurance marketplace more

accessible and affordable for people with mental health and substance abuse disorders. For example, starting in 2014, insurers can no longer deny coverage of substance abuse or mental illness as a pre-existing condition and they will not be able to use those conditions to raise premiums (Hyde, 2010). The PPACA will help create a new competitive private health insurance market through state-run health insurance that will provide individuals and small businesses access to affordable coverage for mental health and substance use disorder services. This coverage will be part of the essential benefits package that must be covered by certain plans, including all insurance policies that will be offered through the state run insurance market place and Medicaid (Hyde, 2010).

In addition to improving access to mental health services through insurance coverage, the PPACA attempts to change public attitudes about mental health issues through education and research. The PPACA provides a grant program for Depression Centers of Excellence for the treatment and research of depression and bipolar disorders. The legislation includes grants for up to 20 centers across the country the first year and up to 30 within the first 5 years. The centers will be linked to prominent research facilities where large-sample effectiveness studies will be conducted and clinical programs will be implemented to bring this knowledge to patients. The Depression Centers of Excellence will provide people across the country with increased access to evidenced-based high quality treatment and education that, and will hopefully improve the accuracy and timely diagnosis of depressive disorders and reduce the stigma associated with these conditions (American Association for Geriatric Psychiatry, 2011).

The OEHN has the opportunity to assist depressed employees obtain treatment and provide the workforce with a better understanding of this disease so that they may participate in preventive strategies, support coworkers who have been impacted by depression, and reduce the

stigma associated with this disease. Creating comprehensive initiatives to address depression in the workplace involves working closely with a multidisciplinary team and collaborating with other departments such as human resources and the EAP. Programs and services cannot be implemented without the financial support of upper management. The OEHN has the knowledge and skills to educate upper management on the importance of investing in programs for depression management that will improve the quality of life of the workers and help the organization avoid negative financial consequences of this disease.

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